

(PCT Article 36 and Rule 70)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012507

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-5 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-9 _____ received by this Authority on 01.09.2005 with letter of 01.09.2005
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☒ the claims, nos. 4, 7-9 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>2, 6</u>	YES
		Claims <u>1, 3-5</u>	NO
	Inventive step (IS)	Claims _____	YES
		Claims <u>2, 6</u>	NO
	Industrial applicability (IA)	Claims <u>1-6</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
1.	<u>Prior art</u>		
	D1: US-A-5 554 207		
	D2: US-A-4 362 559		
	D3: DE 101 32 843 A		
2.	<u>Amendments</u>		
	<p>The amendments to claims 4 and 7 to 9 go beyond the disclosure in the application as originally filed, because the formation of titanium carbides, titanium nitrides and/or titanium carbonitrides is only disclosed in connection with certain additives. The amendments thus constitute a generalisation, which is not permissible, and have therefore been disregarded (PCT Rule 70.2(c)).</p> <p>Moreover, claims 7 to 9 relate to inventions in respect of which no international search report has been established. For this reason too, these claims cannot be examined (PCT Rule 66.1(e)).</p>		

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3.	<p><u>Novelty</u></p> <p>The features of claims 1, 3, 4 and 5 are already known from the prior art documents D1, D2 and D3. The features of claim 3 are regarded as implicitly disclosed together with the other features.</p> <p>Document D3 relates to a method for conditioning dust particles, more particularly filter dust particles, and to a method for manufacturing metal. The dust particles which are to be conditioned are introduced into an extruder (12) together with a binder in a predefined mixing ratio. The dust particles are mixed with the binder in the extruder (12) to form a plastic material. After mixing, the plastic material is moulded into shaped elements. The binder is melted in the extruder (12) and the dust particles are then added to the molten binder. Before the moulding stage the plastic material in the extruder (12) is cooled, preferably to a temperature in the range between 50 and 250°C. Alloying and/or slag-forming ingredients may also be added for steelmaking purposes. The proportion of dust particles in the plastic material is between 5 and 95%, and the binder is a thermoplastic and/or thermosetting material or an artificial or natural resin or plastic waste material (see claims 1 to 9, 13 to 16, the abstract, and column 3, lines 1 to 6).</p> <p>It is generally known that thermosetting materials contain nitrogen. It is also noted that dust particles produced in steel manufacturing, as in D3, contain (among other things) FeO, SiO₂, CaO, MgO, Al₂O₃ and TiO₂.</p>

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	<p>Hence these materials are implicitly disclosed in D3.</p> <p>Thus all the features of claims 1, 3, 4 and 5 are anticipated by D3.</p> <p>4. <u>Inventive step</u></p> <p>The addition of an undefined amount of synthetic titanium dioxide is unlikely to have any technical effect with very small concentrations. Claim 2 therefore does not involve an inventive step.</p> <p>Injecting additives into liquid melts is a routine procedure. Claim 6 therefore does not involve an inventive step.</p>